EXHIBIT 1

Scott A. Brandt
Curriculum Vitae
March 6, 2008

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Santa Cruz, CA 95060
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EMPLOYMENT HISTORY

Academic and Professional Positions

1999–present	**Professor**, Computer Science Department, University of California, Santa Cruz
2007–present	**Professor**
2007–present	**Director**, UCSC / Los Alamos National Laboratory Institute for Scalable Scientific Data Management (ISSDM)
2000–present	**Director**, UCSC Systems Research Laboratory (SRL)
2007	**Acting Associate Dean of Research and Graduate Studies**, Jack Baskin School of Engineering (January–March, 2007)
2005–2008	**Director of Graduate Studies**, Computer Science Department
2005–2008	**Associate Director**, UCSC Storage Systems Research Center (SSRC)
2005–2007	**Co-founder / Associate Director**, UCSC/LANL Institute for Scalable Scientific Data Management (ISSDM)
2003–2005	**Associate Director of Graduate Studies**, Computer Science Department
2003–2007	**Associate Professor**
2001	**Co-founder**, UCSC Storage Systems Research Center (SSRC)
1999–2003	**Assistant Professor**
1994–1999	**Instructor/Research Assistant/Teaching Assistant**, Computer Science Department, University of Colorado, Boulder
1992–1994	**Senior Computer Scientist**, Secure Computing Corporation, Roseville, Minnesota
1991–1992	**Senior Research Scientist**, Alliant Techsystems Research and Technology Center (Formerly Honeywell Systems and Research Center), Hopkins, Minnesota
1990–1991	**Founder and Vice President**, Theseus Research, Minneapolis, Minnesota
1987–1990	**Senior Research Scientist**, Honeywell Systems and Research Center, Minneapolis, Minnesota
1985–1987	**Software Engineer**, B-Tree Software, Minnetonka, Minnesota
1985	**Summer Intern/Assistant Software Engineer**, Northern Telecom, Minnetonka, Minnesota
1982–1985	**Assistant Software Engineer**, CPT Corporation, Eden Prairie, Minnesota

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Consulting

October 2007–present	**Expert Witness (Netapp v. Sun)**, DLA Piper, Palo Alto, California
May 2006–July 2007	**Expert Witness (Express Logic v. Green Hills Software)**, Buchanan Ingersoll & Rooney / Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, San Diego, California
March 2006–December 2006	**Consulting Expert**, The Chatham Group, Los Altos, California
November 2003–August 2005	**Expert Witness (HP v. EMC)**, Bartlit Beck Herman Palenchar & Scott LLP, Chicago, Illinois
July 2004–September 2004	**Expert Witness (Optima v. Roxio)**, Holland + Knight, Los Angeles, California
June 2001–May 2003	**Expert Witness (Powerquest v. Symantec)**, The Hecker Law Group, Los Angeles, California
1997	**Instructor and Programmer**, Jacobson, Myers and Associates, Boulder, Colorado
March 1987–May 1988	**Consultant**, HyTec Design, Maple Grove, Minnesota

EDUCATION

- **Ph. D., Computer Science**, University of Colorado at Boulder, June 1999
  Dissertation: *Soft Real-Time Processing with Dynamic QoS Level Resource Management*
  Advisor: Gary Nutt

- **M. S., Computer Science**, University of Minnesota, Minneapolis, December 1993
  Thesis: *Enhanced Robotic Visual Tracking under the Controlled Active Vision Framework*
  Advisor: Nikolaos Papanikolopoulos

- **B. Mathematics (Philosophy minor)**, University of Minnesota, Minneapolis, June 1987

RESEARCH FUNDING

Grants

G17. **US Department of Education**, Graduate Assistance in Areas of National Need (GAANN)—Computer Science, PIs: Ira Pohl and Scott A. Brandt (Brandt PI/Director 2007–2008), $383,643, 2007–2010

G16. **US Department of Education**, Graduate Assistance in Areas of National Need (GAANN)—Computer Science, PIs: Ira Pohl, Suresh Lodha, and Scott Brandt (Brandt PI/Director 2007–2008), $693,432, 2003–2008

G15. **US Department of Energy Office of Science**, "Petascale Data Storage Institute", PIs: Darrell D. E. Long, Scott A. Brandt, Ethan L. Miller, Carlos Maltzahn, in collaboration with Carnegie Mellon University, University of Michigan, Los Alamos National Laboratory, Sandia National Laboratory, Lawrence Berkeley National Laboratory, Oak Ridge National Laboratory, and Pacific Northwest National Laboratory, **$11,250,000** (UCSC: $1,500,000), 2006–2011

G14. **National Science Foundation**, "End-to-End Performance Management for Large Distributed Storage," PIs: Scott A. Brandt, Carlos Maltzahn, Richard Golding, Theodore Wong, **$999,840**, 2006–2009

G13. **University of California/Los Alamos National Laboratory**, *UCSC/LANL Institute for Scientific Data Management*, PIs: Darrell D. E. Long, Scott A. Brandt, ∼**$5,000,000**, 2005–2010

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G12. **Lawrence Livermore National Laboratory, Los Alamos National Laboratory, Sandia National Laboratory**, "Scalable File Systems for High Performance Computing," PIs: Scott A. Brandt, Darrell D. E. Long, Ethan L. Miller, Martín Abadi, and Carlos Maltzahn, **$250,000**, 2005–2007.

G11. **Network Appliance**, "Linking File System Research", PIs: Scott A. Brandt and Carlos Maltzahn, **$45,000**, 2005–2006

G10. **Industry donations to the Storage Systems Research Center from Hewlett-Packard, Hitachi Global Storage Systems, IBM, Engenio, Microsoft, Network Appliance, Onstor, Overland Storage, Veritas, and others**, PIs: Darrell D. E. Long, Scott A. Brandt, and Ethan L. Miller, $\sim$**$150,000 annually**, 2003–present

G9. **UC MICRO**, "Dynamic Integrated Scheduling of Hard Real-Time, Soft Real-Time and Non-Real-Time Processes," PI: Scott A. Brandt, **$32,879**, 2004–2005

G8. **UC MICRO**, "Dynamic Integrated Scheduling of Hard Real-Time, Soft Real-Time and Non-Real-Time Processes," PI: Scott A. Brandt, **$26,511**, 2003–2004

G7. **National Science Foundation**, "Building High-performance, Reliable Storage Systems Using Magnetic RAM", PIs: Ethan L. Miller and Scott A. Brandt, **$413,000**, 2003–2006

G6. **Intel**, "Dynamic Integrated Scheduling of Hard Real-Time, Soft Real-Time, and Non-Real-Time Processes," PI: Scott A. Brandt,**$110,000**, 2002–2005

G5. **Lawrence Livermore National Laboratory, Los Alamos National Laboratory, Sandia National Laboratory**, "Scalable File Systems for High-Performance Computing," PIs: Darrell D. E. Long, Scott A. Brandt, Ethan L. Miller, and Katia Obraczka, **$900,000**, 2002–2005

G4. **USENIX**, "The BEST Scheduler for Integrated Processing of Best-effort and Soft Real-Time Processes," PI: Scott A. Brandt, **$22,000**, 2001–2002

G3. **Lawrence Livermore National Laboratory**, "Building a High-Performance Storage System from Commodity Components," PIs: Darrell D. E. Long, Ethan L. Miller, and Scott A. Brandt, **$65,000**, 2001–2002

G2. **Institute for Scientific Computing Research**, "Application of Probe-based Storage to High Performance Computing," PIs: Darrell D. E. Long and Scott A. Brandt, **$43,163**, 2000–2001

G1. **National Science Foundation**, "Architectures and Algorithms to Exploit Probe-based Storage," PIs: Darrell D. E. Long, Tara Madhyastha, and Scott A. Brandt, **$345,191**, 2000–2002

Honors

H2. Springer Journal of Real-Time Systems Award for Best Student Paper, RTAS 2008

H1. Best Paper award, IPCCC 2007.

H0. Senior Member, IEEE, 2006

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PUBLICATIONS

Journals

J12. Pau Marti, Caixue Lin, Scott A. Brandt, Manel Velasco, Josep Fuertes, "Draco: Efficient Resource Management for Resource-Constrained Control Tasks," ***IEEE Transactions on Computers***, *to appear*.

J11. Carlos Maltzahn, Nikhil Bobb, Mark W. Storer, Damian Eads, Scott A. Brandt, and Ethan L. Miller, "Graffiti: A Framework for Testing Collabrative Distributed Metadata," ***Distributed Data and Structures 7***, Proceedings in Informatics, Carleton Scientific, Volume 21, pp. 97–111, 2007.

J10. Timothy Bisson, Joel Wu, and Scott A. Brandt, "A Distributed Spin-Down Algorithm for Object-Based Storage Devices with Write Redirection," ***Distributed Data and Structures 7***, Carleton Scientific, Volume 21, 2007

J9. Bo Hong, Scott A. Brandt, Darrell D. E. Long, Ethan L. Miller, and Ying Lin, "Using MEMS-Based Storage in Computer Systems–Device Modeling and Management," ***ACM Transactions on Storage***, Volume 2, No. 2, pp. 1–22, May 2006.

J8. Pau Martí, Caixue Lin, Scott A. Brandt, Manel Velasco, Jordi Ayza and Josep M. Fuertes, "Asignación Dinámica de Recursos en Sistemas de Control de Tiempo Real" ("Dynamic Resource Allocation in Real-Time Control Systems"), ***Revista Iberoamericana de Automática e Informática Industrial (Iberoamerican Journal of Automatics and Industrial Control)***, Vol. 3, No. 2, pp. 50–60, April 2006.

J7. Bo Hong, Feng Wang, Scott A. Brandt, Darrell D. E. Long, and Thomas J. E. Schwarz, "Using MEMS-Based Storage in Computer Systems–MEMS Storage Architectures," ***ACM Transactions on Storage***, Volume 2, No. 1, pp. 1–21, February 2006.

J6. David Andrews, Ravi Vemuri, David Chelberg, David Fleeman, David Parrott, Lonnie Welch, and Scott A. Brandt, "A framework for Using Benefit in Complex Real-Time Systems," ***Journal of Parallel and Distributed Computing Practices***, Volume 5, No. 1, March 2002.

J5. Ismail Ari, Ahmed Amer, Robert Gramacy, Ethan L. Miller, Scott A. Brandt, and Darrell D. E. Long, "ACME: Adaptive Caching Using Multiple Experts," ***Distributed Data and Structures 4***, Carleton Scientific, Volume 14, pp. 143–158, 2002.

J4. Scott A. Brandt and Gary J. Nutt, "Flexible Soft Real-Time Processing in Middleware," ***Real-Time Systems: The International Journal of Time-Critical Computing Systems, Special Issue on Flexible Scheduling in Real-Time Systems***, Volume 22, Nos. 1/2, pp. 77–118, January-March 2002.

J3. Gary J. Nutt, Scott A. Brandt, Adam Griff, Sam Siewert, Toby Berk, and Marty Humphrey, "Dynamically Negotiated Resource Management for Data Intensive Application Suites," ***IEEE Transactions on Knowledge and Data Engineering***, Volume 12, No. 1, pp. 78–95, January/February 2000.

J2. Christopher Smith, Scott A. Brandt, and Nikolaos Papanikolopoulos, "Eye-in-Hand Robotic Tasks in Uncalibrated Environments," ***IEEE Transactions on Robotics and Automation***, Volume 13, No. 6, pp. 903–914, December 1997.

J1. Christopher Smith, Charles Richards, Scott A. Brandt, and Nikolaos Papanikolopoulos, "Visual Tracking for Intelligent Vehicle-Highway Systems," ***IEEE Transactions on Vehicular Technology***, Volume 45, No. 4, pp. 744–758, November 1996.

Conferences and Symposia

Acceptance rates provided where known.

C53. Anna Povzner, Tim Kaldewey, Scott A. Brandt, Richard Golding, Theodore Wong, and Carlos Maltzahn, "Efficient Guaranteed Disk Request Scheduling with Fahrrad", ***Eurosys 2008***, Glasgow, Scotland, March 31–April 4, 2008.

C52. Tim Kaldewey, Anna Povzner, Theodore Wong, Richard Golding, Scott Brandt, Carlos Maltzahn, "Virtualizing Disk Performance", ***The IEEE Real-Time and Embedded Technology and Applications Symposium (RTAS 2008)***, St. Louis, Missouri, April 22–24. **Springer Journal of Real-Time Systems Award for Best Student Paper**.

C51. Tim Bisson and Scott A. Brandt, "Reducing Hybrid Disk Write Latency with Flash-Backed I/O Requests," ***International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS '07)***, Istanbul, Turkey, October 24–26, 2007.

C50. Joel Wu, Scott A. Brandt, "Providing Quality of Service Support in Object-based File Systems," ***IEEE / NASA Goddard Conference On Mass Storage Systems And Technologies (MSST 2007)***, San Diego , California, September 24–27, 2007.

C49. Timothy Bisson, Scott A. Brandt, Darrell Long, "A Hybrid Disk-Aware Spin-Down Algorithm with I/O Subsystem Support," ***IEEE International Performance, Computing, and Communications Conference (IPCCC 2007)***, New Orleans, Louisiana, April 11–13, 2007. **Best paper award**.

C48. Joel Wu, Bo Hong, Scott A. Brandt, "Ensuring Performance in Activity-Based File Relocation," ***IEEE International Performance, Computing, and Communications Conference (IPCCC 2007)***, New Orleans, Louisiana, April 11–13, 2007.

C47. Caixue Lin, Tim Kaldewey, Anna Povzner, Scott A. Brandt, "Diverse Soft Real-Time Processing in an Integrated System," ***IEEE Real-Time Systems Symposium (RTSS 2006)***, Rio de Janeiro, Brazil, December 5–8, 2006.

C46. Sage A. Weil, Scott A. Brandt, Carlos Maltzahn, and Ethan L. Miller, "CRUSH: Controlled, Scalable, and Decentralized Placement of Replicated Data," ***International Conference for High Performance Computing, Networking, Storage, and Analysis (SC06)***, Denver, Colorado, November 11–17, 2006.

C45. Sage A. Weil, Scott . Brandt, Ethan L. Miller, Darrell D. E. Long, and Carlos Maltzahn, "Ceph: A Scalable, High-Performance, Distributed Object-based Storage System," ***Symposium on Operating Systems Design and Implementation (OSDI '06)***, Seattle, Washington, November 6–8. 2006.

C44. Timothy Bisson, Scott A. Brandt, and Darrell D. E. Long, "NVCache: Increasing the Effectiveness of Disk Spin-down Algorithms with Caching," ***International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS '06)***, Monterey, California, September 11–13, 2006.

C43. Joel C. Wu and Scott A. Brandt, "The Design And Implementation Of Aqua: An Adaptive Quality Of Service Aware Object-Based Storage Device," ***IEEE / NASA Goddard Conference On Mass Storage Systems And Technologies (MSST 2006)***, pp. 209–218, College Park, Maryland, May 15–18, 2006.

C42. Sasha Ames, Nikhil Bobb, Kevin Greenan, Carlos Maltzahn, Ethan L. Miller, and Scott A. Brandt, "LiFS: An Attribute-Rich File System for Storage Class Memories," ***IEEE / NASA Goddard Conference on Mass Storage Systems and Technologies (MSST 2006)***, College Park, Maryland, May 15–18, 2006.

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C41. Caixue Lin and Scott A. Brandt, "Improving Soft Real-Time Performance Through Better Slack Management," ***IEEE Real-Time Systems Symposium (RTSS 2005)***, pp. 3–14, Miami, Florida, December 5–8, 2005.

C40. Joel Wu, Scott Banachowski, and Scott A. Brandt, "Hierarchical Disk Sharing for Multimedia Systems," ***ACM International Workshop on Network and Operating System Support for Digital Audio and Video (NOSSDAV 2005)***, pp. 189–194, Skamania, Washington, June 13–14, 2005.

C39. Feng Wang, Bo Hong, Scott A. Brandt, Darrell D.E. Long, "Using MEMS-based Storage to Boost Disk Performance," ***IEEE / NASA Goddard Conference on Mass Storage Systems and Technologies (MSST 2005)***, pp. 202–209, Monterey, California, April 11–14, 2005.

C38. Kristal T. Pollack, Scott A. Brandt, "Efficient Access Control for Distributed Hierarchical File Systems," ***IEEE / NASA Goddard Conference on Mass Storage Systems and Technologies (MSST 2005)***, pp. 253–260, Monterey, California, April 11–14, 2005.

C37. Alexander Ames, Nikhil Bobb, Scott A. Brandt, Adam Hiatt, Carlos Maltzahn, Ethan L. Miller, Alisa Neeman, and Deepa Tuteja, "Richer File System Metadata Using Links and Attributes," ***IEEE / NASA Goddard Conference on Mass Storage Systems and Technologies (MSST 2005)***, pp. 49–60, Monterey, California, April 11–14, 2005.

C36. Timothy Bisson and Scott A. Brandt, "Reducing Energy Consumption with a Non-Volatile Storage Cache," ***International Workshop on Software Support for Portable Storage (IWSSPS)*** held in conjunction with the ***IEEE Real-Time and Embedded Systems and Applications Symposium (RTAS 2005)***, San Francisco, California, March 7–10, 2005.

C35. Joel Wu, Scott Banachowski, and Scott A. Brandt, "Automated QoS Support for Multimedia Disk Access", ***Conference on Multimedia Computing and Networking (MMCN 2005)***, Proceedings of SPIE – Volume 5680, Multimedia Computing and Networking 2005, Surendar Chandra, Nalini Venkatasubramaniam, editors, pp. 103–107, San Jose, California, January 19–20, 2005.

C34. Manel Velasco, Josep M. Fuertes, Caixue Lin, Pau Martí, and Scott A. Brandt, "A Control Approach to Bandwidth Management in Networked Control Systems," ***30th Annual Conference of the IEEE Industrial Electronics Society (IECON04)***, Volume 3, pp. 2343–2348, Busan, South Korea, November 2–6, 2004.

C33. Scott Banachowski, Timothy Bisson, and Scott A. Brandt, "Integrating Best-effort Scheduling into a Real-Time System", ***IEEE Real-Time Systems Symposium (RTSS 2004)***, pp. 139–150, Lisbon, Portugal, December 5–8, 2004.

C32. Pau Martí, Caixue Lin, Scott A. Brandt, Manel Velasco, and Josep Fuertes, "Optimal State Feedback Resource Allocation for Resource-Constrained Control Tasks", ***IEEE Real-Time Systems Symposium (RTSS 2004)***, pp. 161–172, Lisbon, Portugal, December 5–8, 2004.

C31. Bo Hong, Thomas Schwarz, Scott A. Brandt, and Darrell D. E. Long, "Reliability of MEMS-based Storage Enclosures", ***IEEE/ACM International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS 2004)***, pp. 571–579, Volendam, The Netherlands, October 5–7, 2004.

C30. Nathan Edel, Deepa Tuteja, Ethan L. Miller, and Scott A. Brandt, "MRAMFS: A Compressing File System for Non-Volatile RAM", ***IEEE/ACM International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS 2004)***, pp. 596–603, Volendam, The Netherlands, October 5–7, 2004.

Curriculum Vitae   Scott A. Brandt   March 6, 2008

C29. Sage A. Weil, Kristal T. Pollack, Scott A. Brandt, and Ethan L. Miller, "Dynamic Metadata Manage-
      ment for Petabyte-scale File Systems," *SuperComputing (SC2004)*, 12 pages (CDROM proceedings),
      Pittsburgh, Pennsylvania, November 6–12, 2004. Nominee, Best Student Paper.

C28. Nathan K. Edel, Ethan L. Miller, Karl S. Brandt, and Scott A. Brandt, "Measuring the Compressibility
      of Metadata and Small Files for Disk/NVRAM Hybrid Storage Systems," *International Symposium
      on Performance Evaluation of Computer and Telecommunication Systems (SPECTS'04)*, pp. 577–
      586, San Jose, California, July 25–29, 2004.

C27. Joel Wu and Scott A. Brandt, "Storage Access Support for Soft Real-Time Applications", *IEEE Real-
      Time Technology and Applications Symposium (RTAS 2004)*, pp. 164–173, Toronto, Canada, May
      25–28, 2004.

C26. Feng Wang, Scott A. Brandt, Ethan L. Miller, and Darrell D. E. Long, "OBFS: A File System for
      Object-Based Storage Devices," *IEEE / NASA Goddard Conference on Mass Storage Systems and
      Technologies (MSST 2004)*, pp. 283–300, College Park, Maryland, April 13–16, 2004.

C25. Feng Wang, Qin Xin, Bo Hong, Scott A. Brandt, Ethan L. Miller, Darrell D. E. Long, and Tyce
      T. McLarty, "File System Workload Analysis for Large Scale Scientific Computing Applications,"
      IEEE / NASA Goddard Conference on Mass Storage Systems and Technologies (MSST 2004),
      pp. 139–152, College Park, Maryland, April 13–16, 2004.

C24. Scott Banachowski, Joel Wu, and Scott A. Brandt, "Missed Deadline Notification in Best-Effort
      Schedulers", *Conference on Multimedia Computing and Networking (MMCN 2004)*, pp. 123–135,
      San Jose, California, January 21–22, 2004.

C23. Scott A. Brandt, Scott Banachowski, Caixue Lin, Timothy Bisson, "Dynamic Integrated Schedul-
      ing of Hard Real-Time, Soft Real-Time, and Non-Real-Time Processes," *IEEE Real-Time Systems
      Symposium (RTSS 2003)*, pp. 396–409, Cancun, Mexico, December 3–5, 2003.

C22. Bo Hong, Scott A. Brandt, Darrell D. E. Long, Ethan L. Miller, Karen A. Glocer, and Zachary N. J.
      Peterson, "Zone-Based Shortest Positioning Time First Scheduling for MEMS-Based Storage De-
      vices," *IEEE/ACM International Symposium on Modeling, Analysis, and Simulation of Computer
      and Telecommunication Systems (MASCOTS 2003)* , pp. 104–113, Orlando, Florida, October 12–15,
      2003.

C21. Ismail Ari, Bo Hong, Ethan L. Miller, Scott A. Brandt and Darrell D. E. Long, "Managing Flash
      Crowds on the Internet," *IEEE/ACM International Symposium on Modeling, Analysis, and Sim-
      ulation of Computer and Telecommunication Systems (MASCOTS 2003)*, pp. 246–249, Orlando,
      Florida, October 12–15, 2003.

C20. Qin Xin, Ethan L. Miller, Thomas Schwarz, Scott A. Brandt, Darrell D. E. Long, and Witold Litwin,
      "Reliability Mechanisms for Very Large Storage Systems," *IEEE / NASA Goddard Conference on
      Mass Storage Systems and Technologies (MSST 2003)*, pp. 146–156, San Diego, California, April
      7–10, 2003.

C19. Scott A. Brandt, Ethan L. Miller, Darrell D. E. Long, and Lan Xue, "Efficient Metadata Management
      in Large Distributed File Systems," *IEEE / NASA Goddard Conference on Mass Storage Systems
      and Technologies (MSST 2003)*, pp. 290–298, San Diego, California, April 7–10, 2003.

C18. Robert Gramacy, Manfred Warmuth, Scott A. Brandt, and Ismail Ari, "Adaptive Caching by Refetch-
      ing," *Neural Information Processing Systems (NIPS 2002)*, pp. 1465–1472, Vancouver, British
      Columbia, Canada, December 9–12, 2002.

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C17. Ying Lin, Scott A. Brandt, Darrell D. E. Long, and Ethan L. Miller, "Power Conservation Strategies for MEMS-based Storage Devices," ***Proceedings of the 10th International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS 2002)***, pp. 53–62, Fort Worth, Texas, October 11–16, 2002.

C16. Tsozen Yeh, Darrell D. E. Long, and Scott A. Brandt, "Increasing Predictive Accuracy by Prefetching Multiple Program and User Specific Files," ***International Symposium on High Performance Computing Systems and Applications (HPCS 2002)***, pp. 12–19, Moncton, New Brunswick, Canada, June 17–19, 2002.

C15. Scott A. Banachowski, Zachary N. J. Peterson, Ethan L. Miller, and Scott A. Brandt, "Intra-file Security for a Distributed File System," ***IEEE Symposium on Mass Storage Systems and Technologies (MSST 2002)***, pp. 153–163, Adelphi, Maryland, April 15–18, 2002.

C14. Scott Banachowski and Scott A. Brandt, "The BEST Scheduler for Integrated Processing of Best-effort and Soft Real-time Processes," ***Conference on Multimedia Computing and Networking 2002 (MMCN '02)***, pp. 46–60, San Jose, California, January 18–25, 2002

C13. Tsozen Yeh, Darrell D. E. Long, and Scott A. Brandt, "Increasing Predictive Accuracy through Limited Prefetching," ***Communication Networks and Distributed Systems Modeling and Simulation Conference (CNDS 2002)***, pp. 131–138, San Antonio, Texas, January 27–31, 2002.

C12. Tsozen Yeh, Darrell D. E. Long, and Scott A. Brandt, "Using program and user information to improve file prediction performance," ***International Symposium on Performance Analysis of Systems and Software (ISPASS '01)***, pp. 111–119, Tucson, Arizona, November 4–6, 2001.

C11. Tsozen Yeh, Darrell D. E. Long, and Scott A. Brandt, "Performing File Prediction with a Program-Based Successor Model," ***International Symposium on Modeling, Analysis, and Simulation on Computer and Telecommunication Systems (MASCOTS 2001)***, pp. 193–202, Cincinnati, Ohio, August 15–18, 2001.

C10. Ethan L. Miller, Scott A.Brandt and Darrell D. E. Long, "HeRMES: High-Performance Reliable MRAM-Enabled Storage," ***IEEE Workshop on Hot Topics in Operating Systems*** (***HotOS-VIII***), pp. 83–87, Elmau, Germany, May 20–23, 2001.

C9.   Scott A. Brandt, "Performance Analysis of Dynamic Soft Real-Time Systems," ***IEEE International Performance, Computing, and Communications Conference (IPCCC 2001)***, pp. 379–386, Phoenix, Arizona, April 4–6, 2001

C8.   Scott A. Brandt, Gary J. Nutt. Toby Berk, and James Mankovich, "A Dynamic Quality of Service Middleware Agent for Mediating Application Resource Usage," ***IEEE Real-Time Systems Symposium(RTSS '98)*** , pp. 307–317, Madrid, Spain, December 2–4, 1998.

C7.   Scott A. Brandt, Gary J. Nutt, Toby Berk, and Marty Humphrey, "Soft Real-Time Application Execution with Dynamic Quality of Service Assurance," ***IEEE/IFIP International Workshop on Quality of Service (IWQoS '98)*** , pp. 154–163, Napa, California, May 18–20, 1998.

C6.   Karl M. Fant and Scott A. Brandt, "Null Convention Logic, A Complete and Consistent Logic for Asynchronous Digital Circuit Synthesis," ***International Conference on Application Specific Systems, Architectures, and Processors (ASAP '96)***, pp. 261–273, Chicago, Illinois, August 19–21, 1996.

C5.   Christopher Smith, Scott A. Brandt, and Nikolaos Papanikolopoulos, "Robotic Exploration under the Controlled Active Vision Framework," *IEEE Conference on Decision and Control (CDC '94)*, pp. 3796–3801, Lake Buena Vista, Florida, December 14–16, 1994.

C4.   Christopher Smith, Nikolaos Papanikolopoulos, Scott A. Brandt, and Charles Richards, "Visual Tracking Strategies for Intelligent Vehicle and Highway Systems," *SPIE Photonics East – Intelligent Vehicle Highway Systems*, 2344:234–245, Boston, Massachusetts, November 1–3, 1994.

C3.   Scott A. Brandt, Christopher Smith, and Nikolaos Papanikolopoulos, "The Minnesota Robotic Visual Tracker: A Flexible Testbed for Vision-Guided Robotic Research," *IEEE International Conference on Systems, Man, and Cybernetics (SMC '94)*, pp. 1363–1368, San Antonio, Texas, October 2–5, 1994.

C2.   Christopher Smith, Scott A. Brandt, and Nikolaos Papanikolopoulos, "Vision Sensing for Intelligent Vehicle-Highway Systems," *IEEE International Conference on Multisensor Fusion and Integration for Intelligent Systems (MFI '94)*, pp. 784–791, Las Vegas, Nevada, October 2–5, 1994.

C1.   Christopher Smith, Scott A. Brandt, and Nikolaos Papanikolopoulos, "Controlled Active Exploration of Uncalibrated Environments," *IEEE International Conference on Computer Vision and Pattern Recognition (CVPR '94)*, pp. 792–795, Seattle, Washington, June 21–23, 1994.

Workshops

W20. Scott A. Brandt, Carlos Maltzahn, Anna Povzner, Roberto Pineiro, Andrew Shewmaker, Tim Kaldewey, "An Integrated Model for Performance Management in a Distributed System," *Workshop on Operating Systems Platforms for Embedded Real-Time Applications (OSPERT 2008)* at *the Euromicro International Conference on Real-Time Systems (ECRTS 2008)*, Prague, Czech Republic, July 1, 2008.

W19. Sage Weil, Andrew Leung, Scott A. Brandt, and Carlos Maltzahn, "RADOS: A Scalable, Reliable Storage Service for Petabyte-scale Storage Clusters," Petascale Data Storage Workshop at SC07, Reno, NV, Nov. 11, 2007.

W18. David O. Bigelow, Suresh Iyer, Tim Kaldewey, Roberto C. Pineiro, Anna Povzner, Scott A. Brandt, Richard A. Golding, Theodore M. Wong, and Carlos Maltzahn, "End-to-End Performance Management for Scalable Distributed Storage," Petascale Data Storage Workshop at SC07, Reno, NV, Nov. 11, 2007.

W17. Sage A. Weil, Scott A. Brandt, Carlos Maltzahn, and Ethan L. Miller, "Scaling Linux Storage to Petabytes," *Linux Storage and Filesystem Workshop (LSF07)*, held in conjunction with the *Conference on File and Storage Technology (FAST '07)*, San Jose, CA, February 12-13, 2007.

W16. Timothy Bisson and Scott A. Brandt, "Leveraging Hybrid Disks for Power and Performance," *Linux Storage and Filesystem Workshop (LSF07)*, held in conjunction with the *Conference on File and Storage Technology (FAST '07)*, San Jose, CA, February 12-13, 2007.

W15. Nikhil Bobb, Damian Eads, Mark W. Storer, Scott A. Brandt, Carlos Maltzahn, and Ethan L. Miller, "Graffiti: A Framework for Testing Collaborative Distributed Metadata," *Workshop on Distributed Data and Structures (WDAS 2006)*, Santa Clara, California, January 4–6, 2006.

W14. Timothy Bisson, Joel Wu, and Scott A. Brandt, "A Distributed Spin-Down Algorithm for Object-Based Storage Devices with Write Redirection," *Workshop on Distributed Data and Structures (WDAS 2006)*, Santa Clara, California, January 4–6, 2006.

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W13. Joel Wu and Scott A. Brandt, "QoS Support in Object-based Storage Devices," ***International Workshop on Storage Network Architecture and Parallel I/O (SNAPI '05)***, pp. 41–48, held in conjunction with the ***International Conference on Parallel Architectures and Compilation Techniques (PACT 2005)***, Saint Louis, Missouri, September 17–21, 2005.

W12. Scott A. Brandt, Scott Banachowski, Caixue Lin, and Joel Wu, "Developing a Complete Integrated Real-Time System," ***Workshop on Operating Systems Platforms for Embedded Real-Time Applications (OSPERT 2005)*** at ***the Euromicro International Conference on Real-Time Systems (ECRTS 2005)***, Palma de Mallorca, Spain, July 6–8, 2005.

W11. Scott Banachowski and Scott A. Brandt, "Better Real-time Response for Time-share Scheduling," ***International Workshop on Parallel and Distributed Real-Time Systems (WPDRTS 2003)***, pp. 124–131, Nice, France, April 22–24, 2003.

W10. David Andrews, Lonnie Welch, David Chelberg, and Scott A. Brandt, "A Framework for Using Benefit Functions in Complex Real-Time Systems," ***Workshop on Parallel and Distributed Real-Time Systems (WPDRTS 2002)***, pp. 92–95, Fort Lauderdale, Florida, April 15–16, 2002

W9. Ismail Ari, Ahmed Amer, Ethan L. Miller, Scott A. Brandt, and Darrell D. E. Long. "Who is more adaptive? ACME: adaptive caching using multiple experts," ***Workshop on Distributed Data and Structures (WDAS 2002)***, Paris, France, March 20–23, 2002.

W8. Tsozen Yeh, Darrell D. E. Long, and Scott A. Brandt, "Caching Files with a Program-based Last N Successors Model," ***Workshop on Caching, Coherency and Consistency (WC3 '01)***, Sorrento, Italy, June 17, 2001.

W7. Tsozen Yeh, Darrell D. E. Long, and Scott A. Brandt, "Conserving Battery Energy through Making Fewer Incorrect File Predictions," ***IEEE Workshop on Power Management for Real-Time and Embedded Systems at the IEEE Real-Time Technology and Applications Symposium (RTAS 2001)***, pp. 30–36, Taipei, Taiwan, May 29, 2001.

W6. Lonnie Welch and Scott A. Brandt, "Toward a Realization of the Value of Benefit in Real-Time Systems," ***Workshop on Parallel and Distributed Real-Time Systems (WPDRTS 2001)***, San Francisco, California, April 23–24, 2001.

W5. "Soft Real-Time Processing with Dynamic QoS Level Resource Management," Dagstuhl Seminar 00271, Stochastic and Dynamic Real-Time Systems, Schloss Dagstuhl, Germany, July 2000.

W4. Marty Humphrey, Toby Berk, Scott A. Brandt, and Gary J. Nutt, "The DQM Architecture: Middleware for Application-Centered QoS Resource Management," ***IEEE Workshop on Middleware for Distributed Real-Time Systems and Services (WMDRTSS)*** at the ***IEEE Real-Time Systems Symposium (RTSS 1997)***, pp. 97–104, San Francisco, California, December 2, 1997.

W3. Gary J. Nutt, Toby Berk, Scott A. Brandt, Marty Humphrey, and Sam Siewert, "Resource Management of a Virtual Planning Room," ***International Workshop on Multimedia Information Systems (MIS '97)***, pp. 129–134, Como, Italy, September 25–27, 1997.

W2. Christopher Smith, Nikolaos Papanikolopoulos, and Scott Brandt, "Application of the Controlled Active Vision Framework to Robotic and Transportation Problems," ***IEEE Workshop on Applications of Computer Vision (WACV '94)***, pp. 213–220, Sarasota, Florida, December 5–7, 1994.

W1. Scott A. Brandt and John Budenske, "STARCON – A Reconfigurable Fieldable Signal Processing System," ***AIPR Image Understanding in the 90's: Building Systems That Work***, Proceedings of the *Workshop on Applied Image Pattern Recognition*, B.T. Mitchell, ed., SPIE, pp. 122–126, McLean, Virginia, October 18–19, 1990.

Short Papers

S17. Anna Povzner, Scott Brandt, Richard Golding, Theodore Wong, and Carlos Maltzahn, "Virtualizing Disk Performance with Fahrrad", Work-in-Progress Session of the USENIX Conference on File and Storage Technology (FAST 2008), San Jose, CA, February 26–29, 2008.

S16. Tim Kaldewey, Andrew Shewmaker, Carlos Maltzahn, Theodore Wong, and Scott Brandt, "RADoN: QoS in storage Networks", Work-in-Progress Session of the USENIX Conference on File and Storage Technology (FAST 2008), San Jose, CA, February 26–29, 2008.

S15. Esteban Molina-Estolano, Carlos Maltzahn, Sage Weil, and Scott Brandt, "Dynamic Load Balancing in Ceph", Work-in-Progress Session of the USENIX Conference on File and Storage Technology (FAST 2008), San Jose, CA, February 26–29, 2008.

S14. Ian Pye, Scott Brandt, and Carlos Maltzahn, "Ringer: A Global-Scale Lightweight P2P File Service", Work-in-Progress Session of the USENIX Conference on File and Storage Technology (FAST 2008), San Jose, CA, February 26–29, 2008.

S13. David Bigelow, Scott Brandt, Carlos Maltzahn, and Sage Weil, "Adapting RAID Methods for Use in Object Storage Systems", Work-in-Progress Session of the USENIX Conference on File and Storage Technology (FAST 2008), San Jose, CA, February 26–29, 2008.

S12. Timothy Bisson and Scott A. Brandt, "Flushing Policies for NVCache Enabled Hard Disks," ***IEEE / NASA Goddard Conference On Mass Storage Systems And Technologies (MSST 2007)***, San Diego, CA, September 24–27, 2007.

S11. Tim Kaldewey, Caixue Lin, and Scott A. Brandt, "Firm Real-Time Processing in an Integrated Real-Time System," ***Work-in-Progress Session of the IEEE Real-Time and Embedded Technologies and Applications Symposium (RTAS 2006)***, San Jose, California, April 4–7, 2006.

S10. Anna Povzner, Caixue Lin, and Scott A. Brandt, "Supporting Rate-Based Processes in an Integrated System," ***Work-in-Progress Session of the IEEE Real-Time and Embedded Technologies and Applications Symposium (RTAS 2006)***, San Jose, California, April 4–7, 2006.

S9. Timothy Bisson and Scott A. Brandt, "Adaptive Disk Spin-down Algorithms in Practice," ***Work-in-Progress Proceedings of the Usenix Conference of File and Storage Technology (FAST 2004)***, San Francisco, California, March 31–April 2, 2004.

S8. Caixue Lin, Pau Martí, Scott A. Brandt, Scott Banachowski, Manel Velasco and Josep Fuertes, "Improving Control Performance Using Discrete Quality of Service Levels in a Real-Time System", ***Work-in-Progress Session of the IEEE Real-Time Technology and Applications Symposium (RTAS 2004)***, Toronto, Canada, May 25–28, 2004.

S7. Sage A. Weil, Scott A. Brandt, Ethan L. Miller, and Kristal T. Pollack, "Intelligent Metadata Management for a Petabyte-Scale File System," 2nd ***Intelligent Storage Workshop***, University of Minnesota, Minneapolis, Minnesota, May 19, 2004.

S6.   Joel Wu and Scott A. Brandt, "QoS Support for Intelligent Storage Devices," 2nd *Intelligent Storage Workshop*, University of Minnesota, Minneapolis, Minnesota, May 19, 2004.

S5.   Zachary Peterson, Darrell D. E. Long, and Scott A. Brandt, "Data Placement Based on Seek Time Analysis of a MEMS-based Storage Device," *Work-In-Progress Session of the Conference on File and Storage Technologies (FAST 2002)* , Monterey, California, January 28–30, 2002.

S4.   Scott Banachowski and Scott A. Brandt, "The BEST Desktop Soft Real-Time Scheduler," *Work-in-Progress session of the Real-Time Systems Symposium (RTSS 2001)*, pp. 9–12, London, UK, December 3–6, 2001.

S3.   Scott A. Brandt, Gary J. Nutt, and Kenneth Klingenstein, "A Discrete and Dynamic Approach to Application/Operating System QoS Resource Management," *Internet2 Joint Application/Engineering QoS Workshop (I2QoS '98)*, pp. 22–25, Santa Clara, California, May 21–22, 1998.

S2.   Ron Belt, Danny Anthony, James Brandt, Scott A. Brandt, Don Krantz, Ramin Mojdehbaksh, Bel Shenoy, Alan Smythe, Lynne TeWinkel, Mark Vojta, and William Wehner, "Programming the Alladin Multiprocessor," *Government Microcircuit Applications Conference (GOMAC)*, Las Vegas, Nevada, November 9–12, 1992.

S1.   Scott A. Brandt and Carl Graf, "Digital Image Generation – VICAM," *Digital/Electronic Terrain Board Symposium*, pp. 281–282, Wichita, Kansas, October 5–6, 1989 (published February 1, 1990).

Technical Reports

T2.   Nathan K. Edel, Ethan L. Miller, Karl S. Brandt, and Scott A. Brandt, "Measuring the Compressibility of Metadata and Small Files for Disk/NVRAM Hybrid Storage Systems," Technical Report UCSC-CRL-03-04, Storage Systems Research Center, University of California, Santa Cruz, July 2003.

T1.   Bo Hong and Scott A. Brandt, "An analytical solution to a MEMS seek time model," Technical Report UCSC-CRL-02-31, Storage Systems Research Center, University of California, Santa Cruz, 2002.

Patents

P7.   Karl M. Fant and Scott A.Brandt, **"Asynchronous Logic with Intermediate Value Between Data and Null Values,"** U.S. Patent No. 6,333,640, December 2001.

P6.   Karl M. Fant and Scott A. Brandt, **"Null Convention Logic System,"** U.S. Patent No. 5,828,288, October 1998.

P5.   Karl M. Fant and Scott A. Brandt, **"Method and System for Process Expression and Resolution,"** U.S. Patent No. 5,805,461, September 1998.

P4.   Karl M. Fant and Scott A. Brandt, **"Null Convention Logic System,"** U.S. Patent No. 5,664,212, September 1997.

P3.   Karl M. Fant and Scott A. Brandt, **"Method and System for Process Expression and Resolution including a General Method of Direct Association,"** U.S. Patent No. 5,573,732, November 1996.

P2.   Karl M. Fant and Scott A. Brandt, **"Method and System for Process Expression and Resolution including a Generally and Inherently Concurrent Computer Language,"** U.S. Patent No. 5,355,496, October 1994.

P1.   Karl M. Fant and Scott A. Brandt, **"Null Convention Logic System,"** U.S. Patent No. 5,305,463, April 1994.

Curriculum Vitae   Scott A. Brandt   March 6, 2008

Invited Talks

I27.   "End-to-end quality of service for large distributed storage", High-End Computing—I/O Working Group (HECURA) Workshop, Washington DC, August 2007.

I26.   "Storage research at UCSC:Petascale storage, end-to-end QOS, and virtual disks", IBM Storage Research Strategy Meeting, IBM Almaden Research Center, San Jose, CA, July 2007

I25.   Presenter/panelist on File I/O, DOD NSA Center for Exceptional Computing Advanced Computing Systems Workshop, Baltimore, MD, June 2007.

I24.   Panelist, "High Performance I/O: The Road Less Traveled?", LCI Conference on High Performance Clustered Computing, South Lake Tahoe, CA, May 2007.

I23.   "Ceph: A Scalable, High-Performance Distributed File System," University of New South Wales, March 2007

I22.   "End-to-end performance management for large, distributed storage", National ICT Australia (NICTA), March 2007

I21.   "Ceph: A Scalable, High-Performance Distributed File System," VMware, March 2007.

I20.   "Ceph: A Scalable, High-Performance Distributed File System," Network Appliance, February 2007.

I19.   "Ceph: A Scalable, High-Performance Distributed File System," Symantec, January 2007.

I18.   "Integrating Real-Time and General-Purpose Computing", National ICT Australia (NICTA), October 2006.

I17.   "End-to-end Performance Management for Large, Distributed Storage," High-End Computing—I/O Working Group (HECURA) Workshop, Washington DC, August 2006.

I16.   "UCSCs Perspective on File System and I/O Research and Education," High-End Computing—I/O Working Group (HECURA) Workshop, Washington DC, August 2006.

I15.   Panelist, 10th Workshop on Distributed Supercomputing (SOS10), March, 2006.

I14.   "High-Performance Data Storage at Scale: Managing Petabytes of Data with Commodity Components", University of Pittsburgh, March, 2006.

I13.   "High-Performance Data Storage at Scale: Managing Petabytes of Data with Commodity Components", University of California, Riverside, February, 2006.

I12.   "Integrating Best-Effort and Real-Time Processing", Florida International University, Miami, Florida, December, 2005.

I11.   HEC-IWG File Systems and I/O R&D Workshop, Dallas, Texas, August, 2005.

I10.   "Developing a General-Purpose Real-Time Operating System", **Plenary Speaker**, *The Second Workshop on High Performance, Fault Adaptive, Large Scale Embedded Real-Time Systems (FALSE-II)*, San Francisco, California, March, 2005.

I9.   "Object-Based Storage Systems," Yahoo, Sunnyvale, California, 2005.

I8.   "Peta-Scale Data Storage: Challenges and (a few) Solutions," University of Virginia, Charlottesville, Virginia, October, 2004.

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Curriculum Vitae   Scott A. Brandt   March 6, 2008

I7.   "Peta-Scale Storage Research at the UCSC Storage Systems Research Center (SSRC)", Network Appliance, Sunnyvale, California, November, 2003.

I6.   "Storage Research at the UCSC Storage Systems Research Center", School of Engineering Research Review Day, University of California, Santa Cruz, 2003.

I5.   "Storage Research at the UCSC Storage Systems Research Center", CITRIS Research Review Day, University of California, Davis, 2003.

I4.   "Architectures and Algorithms for MEMS-based Storage", University of Colorado Center for Information Storage, Boulder, Colorado, November 2002.

I3.   "The RA/S Model of Dynamic Integrated Multi-Class Real-Time Systems," University of Ohio, Athens, Ohio, August 2002.

I2.   "Soft Real-Time Processing with Dynamic QoS Level Resource Management," Technische Universität, Dresden, Germany, December 2001.

I1.   "Adaptive Soft Real-Time Processing with QoS Levels", University of Ohio, Athens, Ohio, September 2000.

Curriculum Vitae   Scott A. Brandt   March 6, 2008

PROFESSIONAL ACTIVITIES

Membership in Professional Societies

- **Senior Member**, IEEE

- **Member**, ACM

- **Member**, USENIX

Editorial Duties

- **Editor**, *Proceedings of the Workshop on Operating Systems Platforms for Embedded Real-Time Applications* (OSPERT 2007), Pisa, Italy, July 3, 2007

- **Editor**, *Proceedings of the Workshop on Operating Systems Platforms for Embedded Real-Time Applications* (OSPERT 2006), Dresden, Germany, April 4, 2006

- **Guest Editor**, *Journal of Parallel and Distributed Computing Practices*, Special Issue on Parallel and Distributed Real-Time Systems, 2002

- **Editor**, *Proceedings of the IEEE Real-Time Systems Symposium* (RTSS 2000), Orlando, Florida, November 27–30, 2000

Steering Committee Service

- **Treasurer**, IEEE Technical Committee on Real-Time Systems, 2007–present

- **Executive Committee Member**, IEEE Technical Committee on Real-Time Systems, 2006–present

- **Steering Committee Member**, *Workshop on Parallel and Distributed Real-Time Systems* (WPDRTS), 2002–present

Organizing Committee Service

- **Co-Chair**, *Workshop on Operating Systems Platforms for Embedded Real-Time Applications* (OSPERT 2007), Pisa, Italy,

- **Program Committee Chair**, *IEEE Real-Time and Embedded Technology and Applications Symposium*, (RTAS 2007), Bellevue, Washington, May 2007.

- **Finance Chair**, *IEEE Real-Time Systems Symposium* (RTSS 2006), Rio De Janeiro, Brazil, December, 2006.

- **Program Chair, Real-Time Middleware and Software Engineering Track**, *IEEE Real-Time Systems Symposium* (RTSS 2006), Rio De Janeiro, Brazil, December, 2006.

- **Open-Source Software Competition Chair**, *ACM Multimedia 2006*, Santa Barbara, California, October 22–28, 2006

- **Chair**, *Workshop on Operating Systems Platforms for Embedded Real-Time Applications* (OSPERT 2006), Dresden, Germany, July 5–7, 2006

- **Finance Chair**, *IEEE Real-Time and Embedded Technology and Applications Conference* (RTAS 2006), San Jose, California, April 4–7, 2006

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- **Session Chair**, *Multimedia Computing and Networking* (MMCN 2006), San Jose, California, January 18–19, 2006

- **Local Arrangements Chair**, *IEEE Real-Time and Embedded Technology and Applications Symposium* (RTAS 2005), San Francisco, California, March 7–10, 2005

- **Session Chair**, *IEEE Real-Time and Embedded Technology and Applications Symposium* (RTAS 2004), Toronto, Canada, May 25–28, 2004

- **Publicity Chair**, *IEEE Real-Time Systems Symposium* (RTSS 2004), Lisbon, Portugal, December 5–8, 2004

- **Session Chair**, *IEEE Real-Time and Embedded Technology and Applications Symposium* (RTAS 2002), San Jose, California, September 24–27, 2002

- **Organizing Committee Member and Work-in-Progress Chair**, *Conference on File and Storage Technologies* (FAST 2002), Monterey, California, January 28–30, 2002

- **General Chair**, *Workshop on Parallel and Distributed Real-Time Systems* (WPDRTS 2002), Fort Lauderdale, Florida, April 15–16, 2002

- **Session Chair (Invited Session)**, *IEEE International Performance, Computing, and Communications Conference* (IPCCC 2001), Phoenix, Arizona, April 4–6, 2001

- **Program Chair for the Americas**, *International Workshop on Parallel and Distributed Real-Time Systems* (WPDRTS 2001) and *International Workshop on Embedded/Parallel HPC Systems* (EHPC 2000), San Francisco, California, April 23–24, 2001

- **Work-In-Progress Chair**, *IEEE Real-Time Systems Symposium* (RTSS 2000) , Orlando, Florida, November 27–30, 2000

Program Committee Service

- *ACM Symposium on Applied Computing* (SAC 2009), Hawai'i, March 2009.

- *IEEE Real-Time Systems Symposium* (RTSS 2008), Barcelona, Spain, December 2008.

- *Petascale Data Storage Workshop* at SC08, Austin, Texas, November 15, 2008.

- *Euromicro Conference on Real-Time Systems* (ECRTS 2008), Prague, Czech Republic, July 2008.

- *IEEE International Conference on Distributed Computer Systems* (ICDCS 08) (Main and Multimedia Systems Program Committees), Beijing, China, June 2008.

- *Multimedia Computing and Networking* (MMCN 2008), San Jose, California, January 2008.

- *IEEE Real-Time Systems Symposium* (RTSS 2007), Phoenix, Arizona, December 2007.

- *Euromicro Conference on Real-Time Systems* (ECRTS 2007), Pisa, Italy, July 2007.

- *IEEE International Symposium on Object-oriented Real-time Computing* (ISORC 2007), May, 2007.

- *USENIX Conference on File and Storage Technology* (FAST 2007), San Jose, California, February 2007.

Curriculum Vitae   Scott A. Brandt   March 6, 2008

- *IEEE International Conference on Embedded and Real-Time Computing Systems and Applications* (RTCSA 2006), Sydney, Australia, August 2006.

- *Euromicro Conference on Real-Time Systems* (ECRTS 2006), Dresden, Germany, July 2006.

- *IEEE Real-Time and Embedded Technology and Applications Conference* (RTAS 2006), San Jose, California, April 4–7, 2006

- *Multimedia Computing and Networking* (MMCN 2006), San Jose, California, January 18–19, 2006

- *IEEE Real-Time Systems Symposium* (RTSS 2005), Miami, FL, December 5–8, 2005

- *Workshop on Operating Systems Platforms for Embedded Real-Time Applications* (OSPERT 2005) at the *Euromicro International Conference on Real-Time Systems* (ECRTS 2005), Palma de Mallorca, Spain, July 6–8, 2005

- *Multimedia Computing and Networking* (MMCN 2005), San Jose, California, January 19–20, 2005

- *Multimedia Computing and Networking* (MMCN 2004), San Jose, California, January 21–22, 2004

- *IEEE Real-Time Systems Symposium* (RTSS 2003), Cancun, Mexico, December 3–5, 2003

- *Multimedia Computing and Networking* (MMCN 2003), Santa Clara, California, January 23–24, 2003

- *Multimedia Computing and Networking* (MMCN 2002), San Jose, California, January 18–25, 2002

- *IEEE International Performance, Computing, and Communications Conference* (IPCCC 2002) , Phoenix, Arizona, April 3–5, 2002

- *IEEE Real-Time Systems Symposium* (RTSS 2000), Orlando, Florida, November 27–30, 2000

Reviewer

- *External Reviewer*, Science Foundation Ireland (SFI), 2008

- *USENIX Symposium on Networked Systems Design and Implementation* (NSDI 2008)

- *EURASIP Journal on Embedded Systems*, 2007

- *The IEEE Conference on Measurement and Simulation of Computer and Telecommunication Systems* (MASCOTS 2006)

- *The International Journal of Computers and Applications*, 2005

- *The International Workshop on Storage Network Architecture and Parallel I/O* (SNAPI 2005)

- NSF Panel, 2004.

- NSF Panel, 2004.

- *IEEE Transactions on Computer System*, 2003

- *IEEE Transactions on Computer Systems*, 2002

- *Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems* (MASCOTS 2000)

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- *Hot Interconnects VIII*, 2000

- *International Conference on the Application and Theory of Petri Nets*, 1998

- *International Conference on Robotics and Automation* (ICRA 94), 1994

Curriculum Vitae   Scott A. Brandt   March 6, 2008

ADVISING

Postdoctoral Advisor

- **Dr. Pau Martí** (Universidad Polytechnica de Catalunya, Barcelona, Spain), 2003–2004

- **Dr. Carlos Maltzahn** (Network Appliance Inc., now Research Assistant Professor with the SSRC), 2003–2004

Doctoral Advisor

- **Dr. Sage Weil**, *Ceph: Reliable, Scalable, and High-Performance Distributed Storage*, 2007

- **Dr. Joel Wu**, *Providing Quality of Service Support for Storage Systems*, 2007

- **Dr. Timothy Bisson**, *Improving Hard Disk Power Consumption, Performance, and Reliability Through I/O Redirection*, 2007

- **Dr. Feng Wang**, *Storage Management in Large Distributed Object-based Storage Systems*, 2006

- **Dr. Caixue Lin**, *Unified and Effective Soft Real-Time Processing in Integrated Systems*, 2006

- **Dr. Bo Hong**, *File and Storage Systems for MEMS-Based Storage*, 2005

- **Dr. Scott Banachowski**, *CPU Time-Sharing in Real-Time Systems*, 2005

Master of Science Advisor

- **Eric LaLonde**, *A Characterization of LANL HPC Systems*, 2007

- **Nikhil Bobb**, *The Graffiti Distributed Metadata Management System—Client*, 2006

- **Travis Odegaard**, *The Cache and Multimedia Data*, 2005

- **Timothy Bisson**, *Dynamic Spin-Down Kernel Implementation and Reducing Energy Consumption Using a Non-Volatile Storage Cache*, 2005

- **Ivan Dramaliev**, *Optimizing Probe-based Storage*, 2005

- **Deepa Tuteja**, *Linking File System with MRAM*, 2004

- **Suruchi Malatpure**, *Rate-Based Scheduling in RBED*, 2003

- **Caixue Lin**, *Managing the Soft Real-Time Processes in RBED*, 2003

- **Alicja Szczurowska**, *MRAM—Preliminary Analysis for File System Design*, 2002

- **Feng Wang**, *Using Mems-Based Storage Device in Storage Hierarchy*, 2002

- **Scott Banachowski**, *Using the Best-effort Scheduling Model to Support Soft Real-time Processing*, 2002

- **Lan Xue**, *Efficient Metadata Management in Large Distributed File Systems*, 2002

Curriculum Vitae   Scott A. Brandt   March 6, 2008

Current Research Assistants and Advisees

- **Tim Kaldewey** (Ph.D. student, entered 2005)

- **Anna Povzner** (Ph.D. student, entered 2005)

- **Esteban Molina-Estolano** (Ph.D. student, entered 2006)

- **David Bigelow** (Ph.D. student, entered 2006)

- **Roberto Pineiro** (Ph.D. student, entered 2006)

- **Suresh Iyer** (Ph.D. student, entered 2006)

- **Varun Bhagwan** (Ph.D. student, entered 2006)

- **Ian Pye** (M.S. student, entered 2006)

- **Andrew Shewmaker** (M.S. student, entered 2007)

- **Mrunal Gawade** (M.S. student, entered 2007)